

THE CHOLERA UNMASKED;

OR

ITS TRUE NAME, NATURE, AND CAUSES POINTED OUT;

ALSO

A MORE CONSISTENT AND SUCCESSFUL MODE OF TREATING IT.

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IN the midst of the numerous, opposite, and very conflicting opinions, which prevail at this time respecting the direful epidemic called cholera, permit me to address you, as this disease still exerts its fatal ravages in spite of all that has been done, and the opinions respecting its nature and its treatment seem to be almost as various and unsettled now as they were at the commencement of it, if we may judge, at least, from the recommendations every day proposed in the medical periodicals.

Under these circumstances you will, perhaps, pardon the suggestions of one who, though formerly educated for it, is not now strictly one of your honourable profession, and allow him to advance an opinion which he has long entertained, and which, if it be not founded in truth, has one merit at least—that of novelty. These views have, however, been shown to a few of his medical acquaintance, who do not see any thing in them to forbid the reasonings and conclusions here drawn, which has induced him, with great deference however, to make them more publicly known. If they should be admitted, they will certainly lead to a more decisive, and perhaps more successful mode of treating this deplorable malady.

Many physicians have, I believe, been of opinion that this epidemic, though designated *Cholera morbus*, was not properly that disease, at least according to the definitions given of it by the best nosologists; but what it was, they have left undetermined, or by what name in their system it should be called. Indeed, that it could not very well be cholera morbus was evident, being for the most part deficient in the grand character of that complaint, as indeed its name implies—purgings with increased biliary secretions; for this secretion seems most often morbidly suppressed and entirely wanting in well-marked cases of this disorder! and the diarrhoea which sometimes precedes it we believe to be no part of the disorder, but is sometimes leading to it, by its weakening influence

upon the general system, and especially upon the parts immediately concerned ; but in very many cases this purging is not present at all, and therefore is not a necessary concomitant or character of the disease.

Perusing the various descriptions of this disorder, as well in England as on the Continent, I have been a long time firmly persuaded that its prevailing character bore a nearer analogy to a complaint that I had had often to contend with among animals, than to any enumerated in the books on human nosology ; and that, in fact, it was a more or less complete suppression of the process of digestion or chylication, as we shall presently illustrate by actual cases, and that it bore a closer resemblance to, and was proceeding from very much the same fatal causes as the *Strophos*, or the *Gripes*, of horses ; in which complaint, in the early part of my practice in this great metropolis, I had had a large and not unsuccessful experience, having discovered its true cause, and a mode of combating it, that generally gave a favourable result.

Attacks of this complaint, like the cholera, often carried off the animal in a few hours ; and in the commencement of my practice, though employing and using all the then known and recommended remedies, (and such are sure to be numerous and discordant enough, where the character of the disease and its treatment are not understood,) I frequently lost my patients. Fearful of losing my credit also, I took unusual pains, by watching, dissection, and otherwise, in satisfying myself of the nature of the disease, and of what should be its proper treatment, and at length so far succeeded, that for years I never lost a patient, though often contending with protracted and cruel cases. The success that attended my treatment induced me, for a considerable period, to keep the remedy a secret, and it was extensively sold privately ; but, at length, becoming more generally known, and abused also, and not given with the laws prescribed with it, I determined on publishing an account of it, and (what was of fully as much or more consequence) my views respecting the nature and causes of the complaint, and how it should be treated by properly sustained measures in aid of the medicine.—(See "*Essay on the Gripes of Horses*," London, 1816.)—I believe, in the different large breweries in this metropolis that I at that time attended, some thousand pounds worth of horses were saved by what I called a duly-sustained treatment of the complaint, and of which testimonies were given me, which appear at the end of the above treatise.

In respect to the cause of the disease, I traced it satisfactorily, at its commencement, to an insufficient power in the alimentary organs to carry on and perfect the digestive process, either from the accession of some debilitating cause, which rendered these organs unequal to the task, or from the unfavourable nature of the contents of the viscera as to quality or quantity, or from both or all these causes combined. The lowering agency of a sudden chill to the abdomen would alone produce it under ordinary circumstances, and still more easily if a refractory quality or unusual quantity was superadded. Derangement or suppression of the chylic process taking place in the intestines, the disease would be carried on there to its termination in death ; or it might be communicated by sympathy or by connexion to the stomach, or *vice versâ*, beginning in the stomach, it might be carried to the bowels. In either case the suppression or arrestation of the digestive process would quickly produce

tormina, which, if not relieved by the restoration of digestion, would quickly terminate in death, either by inflaming the mucous membrane of the bowels or stomach, or by its operation upon the brain through the agency of the nerves of the stomach. In horses, who could withstand a severer shock of this sort than the more sensitive human being, inflammation would have time to establish itself pretty fully in the membranes of the bowels, and produce appearances not very unlike what Dr. Annesley has given in his work on Indian Cholera; for extreme violence in the attack from several causes combined, with great strength of constitution to resist it, would have much the same effect in the animal as often happened in the severe and protracted cases related in India.

We may, perhaps, illustrate the cause of the sudden termination of the complaint in the following way:—that many substances assume a poisonous quality if they are not digested, but if digested they are perfectly inert.

If you give to a horse four ounces of the leaves of the yew tree, on an empty stomach, it will destroy him in a few hours, and but a very slight appearance of inflammation will the stomach exhibit, in petechiæ, or spots of the size of the little finger nail. But if to this quantity of the acrid vegetable you add eight ounces of oats, and mix them together, he will eat the whole, will digest them well, and will not even be incommoded: so that, in the former case, he must have been destroyed by the influence of the undigested matter upon the brain, acting on the nerves of the stomach before the other symptoms attending the suppressed act could have had time to display themselves.

It may be asked, what should be the cause of this epidemic at this particular time, and why it should be almost wholly, if not quite, a human one? This I would not undertake to account for, any more than for the plagues in Egypt or Jerusalem, or the causes of any other scourges with which the Almighty at times has assuredly visited mankind. I can however, in reply to it, only just observe, that if the atmosphere was, by any changes in it, rendered less stimulant to the ordinary act of human digestion, it would readily produce such an effect; nor could we, perhaps, by any analysis detect it, though it is possible that we might, if truly, anxiously, and industriously employed upon it. That the atmosphere, for a long time past, has been more thick, turbid, and hazy, than I ever remember it before, I can from frequent observation testify; but whether this appearance did or did not belong to the production of the disease, I do not undertake to determine, though I fully believe so: admitting, however, but for a moment the position, we should then see that the naturally weak, the debilitated from intemperance, the glutton, the drunkard, the imprudent, the exposed and the destitute, would be the especial objects of its visitation; as, in fact they have been, amongst its most frequent victims. General Diebitsch was a remarkable instance of it, being a wholesale devourer of punch.

No better account has ever yet been given of the immediate cause of many a pestilence, many a fever and plague, and for which we can only present as a cause the inexplicable general term *malaria*, or the Almighty will, and no further yet have the profoundest researchers into primary causes been able to get.

One of the best related cases I have seen of the cholera, and most minutely detailed, was that of a gentleman at or near Glasgow, I think, who had eaten

an unusually hearty meal of pickled salmon, being fond of it. The mass was too considerable, either from the quantity itself, or the debilitating influences of the malaria, or both, for it to pass through the usual stages of chylication; he was seized with what were called the genuine symptoms of cholera, which no one ever disputed they were, and he died. Now all the circumstances here could be readily explained upon those principles which I have laid down in explaining the gripes of horses; but there, in some of the most violent and rapid cases in their termination, we had a direct and visible cause in a chilling atmosphere, with or without rain, and the animal also sweating from labour at the time of its application, and thus doubling the chill and susceptibility; so that any peculiarity in the atmosphere, more than its being a cold north-easter, was not found to be necessary to its production. The magnitude of the intestines of the horse—the prodigious mass they would contain of vegetable food, least liable of any to digestion—the thin membranes composing them, and the vast abdominal surface exposed to the atmospheric influence, it was that rendered them quite unequal to the task of carrying on the digestive process under such untoward circumstances; and digestion ceasing, *tormina* succeeded, and the disorder once begun, led to others producing active inflammation in the mucous membrane, brain affections, &c.

Now what has been said most to produce this cholera, was the eating of cucumbers and melons, and unripe fruits, and hard meats—and why? because these are amongst the most difficult of the vegetable and animal substances of digestion, and, refusing digestion, they become poisonous, and so do they act in producing *tormina*, knotting of the abdomen, and writhing; and from whence the ancients very naturally called it *Strophos*, from the verb *strepho*, to turn, twist, or writhe about. And may we not also readily account for the extraordinary coldness of the tongue, the coldness, lax, and corrugated appearance of the skin, so often noticed on these principles, from the sympathy of those parts with it, and from the chilled and rigid state of the stomach, and the total absence of digestive power, the blood then retiring to other parts of the body.

In respect to the cure, which all will be desirous to know, it consists only in well-known remedies; but their operation will be rendered more effectual by understanding the nature of the disease, and the point to be obtained, viz., *the restoration of the digestive function at all events*; for before I found this, I rested when the remedy had been given, nor knew what to do if it did not succeed or take effect, my practice having been then almost purely empirical; but if the train of operations in the stomach and bowels were not restored at one dose, I resorted immediately to a repetition, regardless of the terrors about inflammation, (a bugbear which former idle apprehensions had filled me with,) by a third, a fourth, or a fifth, pursuing it without delay, and by other measures also nearly as potent, till I saw the healthy actions return, or a recommencement of the digestive process, which being sustained by prudent measures, the case did well. If inflammation had begun, some slight after-treatment might be necessary.

With the horses, I led them to a warm place, immediately shut the doors and windows, covered them with rugs, threw down straw for them to roll upon,

and gave them successive doses of the *Tincture of Pimento*, about a quarter of a pint at a dose, waiting half or three quarters of an hour between every dose. Getting my hands under the rugs, I rubbed the abdomen with flannel; and sometimes, with all this it took seven hours, in very bad cases, to restore the digestive process, but many a one supposed to be dead recovered; for the relief is so great and soothing to them after the excruciating agony they had suffered, that they doze often on losing their pain.

I will now relate a human case, and its treatment. A very respectable middle-aged woman, in service, not far from my house, had eaten a free, but not very copious, dinner of liver and bacon, and, I believe, had taken porter instead of water with it. She dressed and went out in the afternoon, with a friend, to the Bazaar in St. James's Street, and loitering about to look at the various articles, and a wind blowing through the avenues of the building at the time, she suddenly became uneasy, and soon in violent pain. She returned home as fast as she could, and complained very much of sickness, and a deep, oppressed, painful feeling about the præcordia. She vomited violently, but this did not relieve her pain, which became excruciating. I then ordered her to shut the door of the apartment she was in, and to put the kettle on, with a pint of water—this small quantity only, that it might the sooner be heated; and of this, when nearly boiling, I made her drink, as hot as she could in any way get it down, three parts of a pint; her vomiting continued, however, and her pain; and she has since informed me, which I had not paid much attention to at the time, that she had violent spasmodic cramps or pains in the calves of her legs. I next, therefore, ordered half a pint of hot ginger tea, which she also took, but without relief. About an hour had passed over in this way, still in severe pain. I now ordered her to bed, sending with her a good pan of hot coals to warm it well first; and to this I added a glass of hot gin and water, a little sweetened, which she sipped as hot as she could take it. In less than five minutes after she felt a sudden remission of the pain; she slept well after, and the next morning was at her work as usual. She seemed, however, headachy towards the afternoon, and I recommended a dose of Glauber and Epsom salts mixed, which restored her usual health.

A few days ago, a gentleman of my acquaintance, whose son was not unacquainted with my opinions respecting this complaint, was suddenly seized one evening with excruciating pains about the præcordia, and unlike any thing, in point of severity, he had ever experienced before; he compared it to being screwed through with a screw. A fire was made in his room, and brandy and water pretty strong, with laudanum, (which I do not recommend,) was given him by his son; and, at the end of two hours, by these remedies, and with rubbing the abdomen with flannel, he was relieved, and was out the next day on his morning walk, when I saw him and heard his description of what he had gone through; and his son related to me what he had done for him.

I consider myself as having been twice attacked with an arrested digestive process, and which, if permitted only a short time to have gone on, would have ended in what is called a true cholera, (for names, though apparently simple, are frightful things often in misleading our views.) I immediately closed the apartment, took to drinking hot water (as hot as I could get it down); I sat

by the fire and rubbed with a flannel bag over the hand, the abdomen, and in a quarter of an hour had dispelled the symptoms. This is the simplest form perhaps of the complaint, or rather the point of commencement of it, when it can be more easily subdued—especially if there be no great opposition from the mass of food, or from its quality not being of a very refractory nature, and the animal powers in tolerable force. The knotted state of the abdomen appears to arise from the *recti* and other abdominal muscles being contracted in sympathy with the suffering parts beneath. For some remarkable cases, where the restoration in the horse was opposed by a combination of untoward circumstances, I must refer the reader to the treatise above described, and for a great deal of reasoning and observation which would be out of place in this small sketch.

As to anodynes or opiates, it must be obvious, relieving pain by mere soothing and lulling the nerves must be nugatory while the causes of that pain remained uncontrolled: I, therefore, early quitted the use of them, and found, by doing without them, their total uselessness; and as bleeding may exhaust the very powers we want to rouse, that also I never resorted to till the next day, if any inflammatory symptoms appeared to remain from the lateness of the remedy or from the extensive application of it, when a gentle purgative or a venesection was decisive.

There may be cases, though I believe but rarely, where the *cardiac* system (or heart, arteries, and veins) may be oppressed by an overcharge of blood, as in some plethoric people, where *breathing a vein* would set the springs more at liberty for motion, and be of service; otherwise blood-letting I believe not to be necessary, unless to suppress, as we have stated, any inflammation consequent upon the remedy, or that may have arisen from its late application.

After this manner may be successfully treated, we believe, a very great number of these strophic attacks, if for once we may be allowed to drop the erroneous term cholera, for there is certainly no *χολη* or bile to characterize the complaint, or concerned in it; but rather, perhaps, a want or suppression of this secretion; and which want of the daily purgative of life it is which adds to the facility of access, and severity, perhaps, of the complaint: and may not the diarrhœa, complained of in many cases as preceding the complaint, derive its origin from the want of the stimulation of this natural fluid; the intestines really inflaming for the want of its usual operation upon them—thus inducing a capillary arterial flow into them and a purging—for the same causes that suppress the digestive act, will, it is probable, tend also to diminish biliary secretion.

Though by no means generally, yet in several instances we have of late observed that the remedies proposed were of the description here pointed out. Horseradish tea has been given at Ely, in Cambridgeshire, and a cholera tincture is now sold in the shops; but, in the manner of using them, there does not seem to be a full understanding of the true nature of the disease, which they continue to call cholera; nor do they appear to be aware of the necessity of making their treatment efficient by a combined plan of operations in the attacking it; so that their treatment is almost an empirical one, and would not, in this case, be attended with nearly so extensive a success.

A few additional remarks, which tend to confirm the identity of Cholera with the Gripes of Horses.

IN the treatise above referred to on the Gripes of Horses, we have shown from observations made more than thirty years ago, that the atmospheric influence was alone sufficient for the production of this fatal disorder in the horse, and that a loaded stomach, especially of indigestible food, or from its having been too hastily eaten or ill chewed, or even without these attentions, would, if a chilling atmosphere prevailed, and especially if accompanied with draughts of air or of dampness or rain, become fully adequate to the production of the disease. And we now learn, from the accurate observations of certain French writers, that such causes or agents were actively present on the occasion of the cholera first breaking out in Paris. These relate that for many days previous to its appearance, the heat or temperature of the atmosphere about the middle of the day was considerably greater than usually attended that season of the year, but that during the evenings, the nights, and mornings, there prevailed a strong chilling wind, *blowing from the north-east*, which, after continuing some time, shifted suddenly to the north-west, (which in all probability brought relaxing vapours and dampness in abundance,) and immediately upon this change did the cholera commence its ravages in the most formidable way in the metropolis, carrying off many thousands in the course of a week. (See Gendrin, *Mono-graphie du Cholera Morbus*. Also Bouillard, *Traité pratique du Cholera Morbus*.) So that perhaps is here exposed all the machinery necessary for the perfect production of so terrible a visitation; but whether any other cause were superadded, that our analytical knowledge does not extend to, is only known to Him who can say,

—————"necessity or chance
Approach not me, and what I will is fate."

We shall again advert to the proposition recommended in the foregoing communication, as to the administration of salts in the diarrhoea, or purging, which at times precedes the access of this disorder. It would perhaps appear to some a strange anomaly of prescription to give salts to a person already labouring under a diarrhoea: their efficacy, however, I can from much experience speak of in respect to horses in arresting a super-purgation, (see *Pharmacopœia Equina*, p. 29,) and there are practitioners who have confirmed the fact of their utility in this way in the human. It may appear unnecessary, or presumptuous in me, to attempt an explanation of their operation, or I should be induced to observe that they can operate in three ways in producing so favourable a result: 1st, by inducing a new and different action to those already going on in the stomach and intestines; 2dly, by the alkaline and sulphurous properties of the salts themselves, in correcting any acrescent or acrimonious quality in the fluid contents of these organs; and finally, and perhaps most efficiently of all, by causing a flow of healthy bile into the intestines, where there had previously been a deficient quantity, or a total suppression of that very necessary stimulant to due intestinal performance.

In respect to the case of cholera above related, we advert to it again just to state, that had it not yielded to the combined effects of the hot water, hot

ginger tea, hot bed, and hot gin and water, we should have pursued our course by still stronger measures—with brandy and water, and with the *Gripe-tincture*, which is brandy, or proof spirit and aromatics or spices: see the above Treatise on Gripes, p. 10.

Some of my readers of the above communication have demanded further proof of food not digested assuming poisonous qualities. In reply to this demand, I have noticed to them the effects which shell-fish sometimes produce. The most notorious of these is the Muscle, which eaten hastily, or without the priming of some stimulating agent, as pepper, salt, or vinegar, or eaten in too great quantity, will refuse digestion, and all the phenomena of poisoning be exhibited; so much so, that those called in to the case have often declared that it was a true case of poisoning, and by copper, and that these animals must have lain upon, or eaten copper, and as coming from some coppered vessel that had been stranded! So that, to fulfil this theory of poisoning by copper, these innocent animals must have committed suicide; and perhaps it might have been added, in order to be revenged on those who should so unmercifully devour them—for there is no doubt they possess too delicate a discrimination in taking food, to take copper and not know it, and therefore must have had some strong motive for so extraordinary an act. That this case will illustrate our position, and singularly serves to confirm it.

In respect to the whitish or grey fœcula, compared to rice water, observable floating in the liquids of the intestines in this disease, should we not conjecture that such was perhaps the effect, or an imperfect attempt at forming chyle, in degree decomposed and coagulated by the morbid arterial destillations or effusions into the intestines, and which the constricted and paralysed condition of the alimentary canal did not admit of being absorbed in the usual manner by the lacteals—or it may be a curdling or decomposition of these arterial effusions; and does not the general colour of these fluids in the intestines sufficiently exhibit the non-presence of bile, and demonstrate the deficiency of this secretion? but after which, in supposing a redundancy, the complaint has been falsely named. Sometimes, however, regurgitations of pent-up bile in the gall-bladder thrown into the intestines by spasm, or otherwise, might vary or disturb this general and usual appearance, but should not be allowed to deceive us, as the contrary appearance was found to be the most usual on dissection after death.

7, Taunton Place, Regent's Park, 10 Mo. 12, 1832.

N.B. *The Author's Publications on Shoeing and Veterinary subjects are now selling at a less price than the flash octavos of the bookselling tribe, at Charles Clark's, Stamford-street, Blackfriars-bridge, and at the Author's, No. 7, Taunton Place, Regent's Park.*

P A R T II.

OF A

DISSERTATION, ON THE EPIDEMIC CHOLERA.

In the preceding part, or memoir, I endeavoured to consider the true origin and nature of this disease, and why at times it assumed such a very sudden and fatal termination, viz., from the undigested mass acquiring a poisonous character. This also would explain the cause of the furious riots in Paris and St. Petersburg on the first breaking out of the epidemic, the populace conceiving that they were poisoned by the doctors, and also by the vintners, many of whom nearly lost their lives through this suspicion.

And we also endeavoured to explain why at other times, as in the more protracted cases, without actually destroying the patient at once, it produced effects on the nervous system, such as gave to it very much the appearance of a low nervous fever, or typhus. To these remarks were added what we conceived to be the genuine principles for its treatment, by recalling, by every possible means combined, the restoration of the impaired or lost digestive and chylopoietic functions.

In the present memoir, it is proposed to inquire into the antiquity and original signification of the term *cholera*, and to examine the views and opinions of those physicians who followed immediately after the ancients, and from whom we have principally derived our present erroneous views of the disease, and then those of our modern physicians, and to conclude by giving to the disease a new name and arrangement in the medical system.

Desirous of ascertaining more exactly the origin of the term *cholera* among the ancients, and the sense in which they employed it, and how these erroneous notions of the bilious nature of this complaint first originated, I was led, in order to pursue these researches, to avail myself of the two noble medical libraries in Lincoln's-inn-fields, that of the College of Surgeons, and that of the Medico-Chirurgical Society, and I acknowledge with pleasure my having received the most polite attention and satisfactory aid from the two respective librarians having the care of these valuable collections.

As far back as Hippocrates, the word *cholera* is found, it several times occurring in his works, and always standing by itself, and without the modern adjunct of *morbus* attached to it. It is therefore of very remote antiquity, but in his descriptions of the disease he does not appear particularly to refer it to a bilious origin, neither does he appear to have ever seen it in the character of a terrible epidemic, such as it has appeared of late years in India and in Europe.

Before Hippocrates, however, Erasistratus describes the disorder, and without appearing particularly to insist on its bilious origin or character.

But the word cholera is to be found long antecedent to both the above writers, and at a period nearly coeval with the earliest graphic records. It occurs several times in the original Hebrew of the sacred writings, and as early as the books of the Pentateuch of Moses. In the Hebrew the word is often divided into two, חֲלִי *choli* and רָא *ra*; sometimes, however, united. According to the Hebraists, *choli* simply signifies illness, sickness, inflictive disease, or plague, without any reference to, or as being in any manner derived from, bile in particular. They inform us also that the additional *ra* signifies that the said infliction or disease was in an excessive or superlative degree. We subjoin the references to all those passages where the term is said to be found, as well in the writings of Moses as in the other parts of the Scriptures, that any one more deeply versed in the study of Hebrew, than we profess to be, may have the opportunity of fully considering the true meaning and sense in which they have been employed. These passages, we ought also in justice to state, appear to have been first collected and observed by a gentleman of the Cambridge University, E. H. Smith, Esq. Deut. xxviii. ver 59, vii. 15; 2 Chron. xxi. 15; 1 Kings xvii. 17; and others.

Here it is pretty clear and evident, that in this very ancient use of the term *choli*, it had no relation to the liver or any of its secretions, but did merely indicate a dire disease, or infliction. And may it be otherwise than fair to conclude, that as Moses was said to be "skilled in all the learning of the Egyptians," and was an Egyptian by birth, that he derived the very term from this extraordinary people, and is it not also as fair to conclude that the Greeks obtained it from the very same source, or rather from the Hebrews, and for reasons we shall see hereafter.

For it may be worthy of remark, as a singular fact, that two words so nearly allied as the Hebrew *choli*, and the Greek $\chi\omicron\lambda\eta$, in which, in pronunciation, there is hardly a difference, should have had such very different significations, when used by two neighbouring states or nations; and that one should signify disease only, whilst the other should signify bile only, since the Greeks appear to have had no other phrase for this secretion. It is therefore but reasonable to conclude that this would give them a bias towards considering it a bilious disease, not easy to disembarass themselves of, and in a still greater degree would be this bias in those who consulted the Greek physicians and learnt their language and their arts exteriorly, and such we shall see has been the general bias of nearly all European physicians.

The additional *ra* alone serves to distinguish this term from the expression for bile, $\chi\omicron\lambda\eta$, and as *ra* would signify nothing in the Greek if so added, but is of powerful effect in the Hebrew, it must be clear that it is of Hebrew or Egyptian origin.

We shall now see these remarks in a singular manner verified on referring to Celsus, who followed those early Greek physicians above noticed, at no very distant period, and here we find him ascribing to cholera directly a bilious origin, and supporting the opinion apparently by his own observations on the disease. I cannot any where find, however, the quotation of Dr. Mason Good, who tells us that Celsus derived cholera from $\chi\omicron\lambda\eta$, *bile*, and $\rho\epsilon\omega$, *to flow*, for no such derivation occurs with him: Celsus probably knew better. This is another instance of false quotation, showing how necessary it is to examine quotations, and not to take them on trust, for this passage has been lately often repeated by others. The real words of Celsus are well worth remarking, and are as follows:—"Nam simul et dejectio, et vomitus est; præterque hæc, inflatio est, intestina torquentur, bilis supra infraque erumpit, primum aquæ similis, deinde ut in ea recens caro lota esse videatur, interdum alba, nonnunquam nigra, vel varia. Ergo eo nomine morbum nunc $\chi\omicron\lambda\epsilon\rho\alpha$, Græci nominantur." Celsus, lib. 4. c. xi.

Here we see that Celsus fully falls into the idea of a dreadfully bilious disease, and to confirm his apprehensions, this excellent man is led to imagine that the bile can assume nearly all colours and forms, and as being "sometimes limpid as water, sometimes in lumps like parboiled bits of flesh, sometimes white, and sometimes black, or various." In the cure, however, he recommends warm water, as we do, but seems to defer spices and wines till towards the conclusion of the disorder!

The physicians, after the time of Celsus, following his example, more and more embraced, almost invariably, the notion of a bilious origin to this complaint, and not from a suppression, which is generally the fact, but from a redundancy of the bile. Yet very numerous accurately-conducted dissections of late have convincingly proved the contrary to be the case, by the fulness of the gall-bladder itself, and from the dark colour of the retained bile. Hence I was led in an early part of my former communication to say, that either the disease was wrongly referred to, or the name of it, implying bile or as of bilious origin, was a misnomer, and such proves now to be the fact, and we must go back to the simple Hebrew sense of the word to justify the name at all.

It is, however, possible that a very contrary state, viz., a suppression of the bile, may so derange the health as to render a person more obnoxious to the disease, or predispose him to receive it; though even

then the disease must be proximately or primarily induced by certain conditions of the stomach, as to food and of the atmosphere, as to chill or damp, fully to induce the access. For that cannot at least, in any proper sense of the term, be called a bilious disease, where this secretion, instead of abounding, is deficient or rendered difficult. In what sense the ancient Egyptians employed the term it would be now hard to discover, but it is fair to conjecture perhaps in the same simple sense that we find it with the Hebrews; as a pestilence of whose origin they knew nothing.

Having in some degree corrected the terms used, and estimated their proper value, we may now more safely venture to consider, and more usefully also, some of the less ancient writings of physicians upon this complaint, and from these pass to the modern writers, proposing a new name afterwards more expressive of the nature of the disease.

Before, however, I quit this part of the subject, I could desire just to remark, that during my stay in Germany about two years ago, and with this complaint raging all around me, I observed that the Germans pronounced the word cholera very differently to what we do in England, pronouncing the *e* long, *cholëra*, instead of short, as we do, *cholëra*. Whether it may serve to guide us I do not undertake to determine, but the Greeks certainly spelt it with an eta (η) or *e* long, and, I should therefore be led to believe this ought to be the normal pronunciation of it, and that it was so pronounced by the Eastern nations, from whom the Germans are more likely, from their actual locality, to have received it, than ourselves. It is singular, however, and worthy of notice, that in the foregoing quotation from Celsus, we see it spelt with an epsilon gravely accented, and not as we find it in the Greek writers generally written, which may perhaps be explained from the frequent transcriptions by the Romans, and by scribes who knew not Greek, and had no letter in their alphabet corresponding to the eta or *e* long.

Encouraged by the opportunity these splendid libraries afforded me, I thought it well also just to examine respecting the opinions of some of those physicians who succeeded at some distance those ancients we have lately spoken of. *Alexander Trallianus* was one of these, and appears to have lived about the reign of the Emperor Julian, the Apostate, and was by birth a Syrian, writing in his native tongue: his works were translated into Greek, and afterwards published with a latin version, by the industrious Germans at Andernach. He appears to have regarded the diarrhœa, which sometimes attended this complaint, as not particularly proceeding from bilious discharges; and he appears also to have entertained very just views of the complaint itself, ascribing it to indigestion and to chills, and recommending warm clothing and warm spicy medicaments; hence his practice must have been eminently successful. Neither does he make much mention of bile in it; in one part indeed its presence in the organs of digestion is expressly denied by him. *Edit. Andernachicæ Rhenensis*, lib. vii. cap. 14.

Cœlius Aurelianus, *De Acutis Morbis*, lib. iii. cap. 19, is under great difficulties as to the origin of the word cholera, but throws no new light upon the subject, and most fully supposes it the consequence of a redundancy of the bile, and all his reasonings are full of those imaginations which such a doctrine naturally leads to, and are hardly worthy of a repetition here.

Aræteus, *De Morbis Acutis*, lib. ii. cap. 6. His treatment and views are evidently confused, and without any clear conception of the nature of the malady, or of what he ought to do with it. What there is of good in his book is evidently copied from the writings of Celsus, of which it is very much a commentary. He is full of the notion of a redundant bile, and of the necessity of its evacuation.

Exactly at what period of time the word *morbus* became first added to this disease I am not aware, or wherefore it was done, as it appears to be gratuitous and unnecessary. It was, perhaps, added under the pretence of separating this disease from those affections of the mind termed *choleric*, or *choleric*, angry passions or temperaments, or of distinguishing it from the mental affections which the Greeks termed *melan choli*. Whatever the motive may have been, the addition certainly gave it a more sounding and terrific effect, and especially when attached to one of the most awfully sudden and fatal of human maladies; and the Latins, in translating *melancholi* by *atrabiliaris*, thus made it wholly a bilious disease, and left it in no equivocal sense but as originating in black bile.

The first use of this expletive addition that I noticed in the course of these researches was found in the Latin translation of Avicenna, the Arabian physician, printed at Venice in the year 1607, though it is possible its use might have been introduced still earlier. There is not much in Avicenna upon this disease that is at all satisfactory, it is but a rambling sort of copy from the Greek and Latin physicians.

I am now led to open the volumes of some of our more modern and recent writers upon this subject, as it will afford me, without much prefatory detail, the opportunity of introducing some novel views on this subject, which I have some time entertained, and which respect the nature and also the

proper classing of this complaint, and so introduced will remove the necessity of a more lengthened disquisition in explaining those opinions.

As standing among the first in erudition and comprehensive views, appears the work of my late esteemed and early friend, Dr. Thomas Young, whose premature loss all true lovers of science must sincerely deplore; he has, however, left behind him an imperishable monument of his acuteness, learning, and perseverance, in first opening the long-closed door of Egyptian literature by his unwearied labours with the triglyph stone, a very precious relic still seen among the rare treasures of our national museum. On this stone he first learnt to decipher the symbolical acrostic manner of writing, and of inscription, used by this ancient and wonderful people.

In that astonishing collection of nosologic matter, his *Medical Literature*, p. 287, Dr. Young has noticed this singular disorder the *cholera morbus*, as he also terms it, and prepossessed with the general feeling arising from the Greek name of it, and of the great medical authorities in respect to it, he fails not to apprehend it to be a disease of entirely bilious origin and character. And, perhaps, in endeavouring to reduce it to some given place in his general system of diseases, he not impossibly felt a little embarrassment where to arrange, and how to dispose of this three-legged monster of a disease, or under which of his genera he should particularly place it. Having for its characters a triple share, viz. vomiting, purging, and tormina. And I may also confess that I remember to have had myself formerly, in early life, an indescribable feeling of horror and confusion left in my mind, after reading in medical works a description of this complaint. Whether such might have been his feelings or not, when he was measuring this disease for its place in his system, I do not undertake to determine; but, however this might be, he at length makes his choice, and unfortunately fixes upon the purging character of it, which leads him to place it immediately under the genus, or order, of *Diarrhœa*. It was evidently necessary to fix it somewhere, as it must inevitably belong to one of the three, and could not with any propriety, as we shall see hereafter, constitute a class, or proper genus, of itself.

His choice, however, was unfortunate, inasmuch as we have already seen that the diarrhœa is not present in well marked cases of this disease, and even when it is, it is not by any means the leading character of it, nor of any very fatal or destructive tendency; but is indeed almost as frequently absent as present, and therefore could in no respect be entitled to so predominant a distinction as that of being the essential or leading character of the disease.

Had he made his election upon the tormina, or strophic character or symptom of the disorder, it would have brought out a very different issue in his arrangement, and in all probability would, after due consideration, have led him to have settled it among the species of the genus *Colica*, and from its destructive character to have given it a very prominent and foremost situation in this painful and fatal group or family of diseases, where, we are confident, it will ultimately be bestowed, and be found truly to belong. For it is now most evident that it is no proper choleous or bilious affection, such at least as the imagined Greek term cholera has generally served to convey a notion of, but a real cholic, with, in general, a suppression more or less complete, of this salutary function of the bile. This position for it will, we believe, greatly facilitate and tend to simplify all our views and apprehensions about it, and likewise its treatment, opening a way also to the fully appreciating the various descriptions and doctrines of its treatment which have, from an almost innumerable host of authors, been given and proposed for it as for an incomprehensible kind of disorder.

As to the vomiting, or third head of this Cerberus of a malady, it would appear to be no other than the mere natural effort of the stomach to throw off those contents which it finds an inability or want of power to act upon, and digest. Sometimes, indeed often, whether owing to mere debility and want of efficient force in the organ itself, the disease unrelieved, goes its course afterwards in spite of these efforts: at other times they prove an effectual relief, and were encouraged on this account by many eminent practitioners, particularly Sydenham. And where it is ascertained, which should be particularly enquired into, that the patient has eaten of stale pork, shell fish, hard matton, certain fruits, or any of those things which undigested exhibit poisonous properties, as we have formerly stated, it is, perhaps, in these cases to be encouraged by artificial means, especially if the quantity taken be such as the use of stimuli may be long in procuring the digestion of, otherwise the latter course would perhaps be safest in a general way to rely upon; many substances being perfectly inert when fully digested, which are rank poisons otherwise, destroying the patient through their effects upon the nerves of the stomach, and acting fatally by sympathy upon the brain, and in more protracted cases producing the appearances of a typhoid disease.

Should the human physician deem these views worthy his attention, they will, we believe, go far to

explain many circumstances and appearances attending the complaint that were before quite obscure and thought inexplicable. Under these views and impressions we shall now venture to take up some others of the most approved writers on the subject; and first, with reverential feelings due to so great a character for learning and worth, the justly-admired Sydenham, and we shall see, that guided by his acute practical observation, and that admirable tact which he so eminently possessed, and aided also by the study of the ancients, how very near he came to the true treatment of the disease, though his views upon it were evidently not distinct, but considerably clouded by the prevailing feeling of preceding ages, of its bilious character and a redundant bile. In other respects he describes the disease well, calling it cholera morbus, see Sect. 4. cap. 2. and says, that in his days, that is from the year 1669 to 1674, it made its appearance every year in the autumn season, on the first chills of the declining summer, with as much regularity "as the coming of the cuckoo in the spring, or of the departure in autumn of the swallow." He describes it with its three characters, vomiting, purging, and gripes, and recommends for its treatment, not exactly the warm water of Celsus and Hippocrates,* but something of a more digestible quality—plenty "of warm chicken broth;" it is, in its effects not very distantly allied to our hot water, which, however, has the advantage, in all situations, of being more quickly attainable. He recommends encouraging the vomiting, and especially on no account to suppress it; and, aware that some cause of offence remained with the stomach, he recommends spear-mint tea also; and also laudanum in the advanced stage of the disease, but expressly forbids its use in the early stage, that it might not repress the vomiting. No doubt finding from experience that it tended to arrest the stomach from performing any of its usual functions, such at least it is fair to conclude would be its effect, and with injurious consequences as to digestion. But towards the latter end, and when in reality the danger was passed, he recommends, as did the ancients, small portions of generous wine. Here, according to our notions, he was somewhat deficient, and in a very bad case would, in all probability, have lost his patient, for the want of these stimuli being more early applied; but washing the stomach out, instead of digesting its contents, may suffice sometimes in mild cases and in feeble attacks of the disorder, and hence the proceeding by emetic will often be found to have succeeded, as may be seen from the history of very many cases where the mustard emetics were employed; which were much used in England at the commencement of the appearance of the epidemic, but were discontinued afterwards, from finding, perhaps, that they had often failed. For if we view the indication for cure rightly, "it is the return of the digestive, and chylipoietic functions" that can alone ensure the safety of the patient.

And, in the course of our perusing later writers on this epidemic, both French and English, it was singular to observe, how frequently they relieved partially, and even at times wholly cured, their patients, by stimulants opportunely exhibited, yet from their feeble manner of doing it, and in doubting and want of faith in what they were doing, instead of persevering, they often left them, in pursuing other measures, miserably to perish; not following up the treatment with the suitable auxiliaries in aid of the remedy: and what was most unfortunate, they afterwards drew conclusions unfavourable to the practice, and forbad their use as prejudicial and injurious, trusting, afterwards often, to the frail aid of mercurials, opium, bleeding, saline slops, venous injections, and other worse propositions.

At other times, again, were these strong stimuli applied naked, if I may be allowed the term, and with nothing given along with them, to qualify and aid their operation, and therefore with injurious effects; for pure brandy in itself, and alone, is certainly no digester of food, quite the contrary; but where it acts well it is aided by combining with the mass of matter already in the stomach, or with fluids given along with it: it then does so, by calling forth the powers of the stomach to throw out its juices and to perform those actions which are necessary to the digestive function; but where it was so circumstanced as not to produce these effects, it would be likely to do harm and be mischievous; or when not supported by the aid of warm demulcent fluids, or aided in every other way that could remove the operation of the paralyzing cause, it would get into discredit also. The placing the contents of the stomach favourably, in order to digestion, and the whole system also, should first, we humbly apprehend, obtain our care and attention, and then the stimuli administered will generally have the desired result; one measure co-operating with another, encouraging and aiding their effects by frictions and mechanical measures, not applied to the legs on account of the cramps, but to the abdomen itself and stomach, the seat of the mischief. Diluting also the spirit and facilitating its digestion, by easily

* Who appears to have taken it from Erasistratus, Lib. 2. as quoted by *Cælius Aurelianus*, p. 262.—"Salutarium utatur tepido potu vomitum provocans vel acrimoniam temperans fellis."

digestible things given along with it, and aiding it, if there be occasion, by warm spices and other stimuli. Encouraging also, by tepid measures, all the organs concerned, and even the extremities of the body, all which circumstances are required in very bad cases. Milder cases will yield to very simple measures, such as friction, and warmth even alone, applied to the region of the stomach.

But if the case be only partially relieved, and these aids are but imperfectly administered, then a protracted case will be the issue, accompanied with those apparently anomalous effects upon the brain and nervous system which often, or generally, end fatally. So that the perfect resuscitation of these offices is indispensably necessary for the accomplishment of the restoration of the sufferer: and we may also see, on this taking place, a return of the most perfect health; that is, if the case has not been of the severest, and its removal has been speedily accomplished, and without much delay, as we might prove in the history of hundreds of cases, which shows most plainly that there can be neither contagion nor any thing fatally depressing about the disorder, even hardly a moment longer than its actual invasion, so that the very same day, or the next day, the patient can return to his usual occupations, of which there is no example, I believe, after an attack of one of those diseases which are by practitioners generally admitted to be really and truly of a contagious character.

Sydenham recommends also gum arabic, and barley-water, with a view, apparently, to sheath and protect the coats of the stomach and bowels from the acrimony of the supposed bilious discharges. And we have thought, if to our hot water were added a little farina of some kind, as flour, starch, oatmeal, or arrow root, if at hand, it would more readily lead on to the commencement of the digestive process, than mere water, but not at all given with any view to sheath the mucous membranes from supposed bile or acrimony of any kind. A gentle stimulation with spices might also be not incongruously added to these farinaceous liquids: as Kyan or white pepper, especially if stale pork, conger, shell-fish, such as muscles, or unripe melon, has been the offending article.

Having thus copiously remarked on the works of this valuable writer, and as most of the other writers of eminence have generally drawn from him and partaken largely of his views, so we shall not proceed to a further consideration of them, but in respect to a more suitable name for it, and a more appropriate locality in the general system of medicine; submitting, with all due deference, what we have to say on this head to the correction of abler heads and more practised hands than ours, for the devising something better; hoping that every attempt, however feeble, that leads to another attempt, may be thought a step and an advancement.

If, in following our suggestion, we may be permitted to place it along with its proper family, as we believe it to be, of the *Colicæ*, we should next propose to inscribe it, for its specific name, with the term *tridolor*, in allusion, as the reader will perceive, to its three distressing accompaniments, vomiting, diarrhœa, and tormina. And, as this proposition may be objected to, from the name *Colica* being subject to some ambiguity, as leading to the apprehension that it was the colon that was chiefly the seat of the disorder, which would not be true; for although this large intestine may at times chill, and become the first organ of the arrested function, yet is the stomach as often, or indeed much oftener, the first part affected; so that to do away all ambiguity, if such might be thought desirable, we should propose to unite the two genera into one, that is, *Cholera* and *Colica*, under a new name, and in order to remove any possible misnomer, inscribe it with the name *Strophos*, the Greek appellation for the tormina, and which, perhaps, always present, attending all the species of the genus, thus making the griping or tormina the essential and leading character, of this large family.

And if after giving it this more natural arrangement, we might be allowed to give it a specific name also, indicative of its dangerous character, we should if it be not thought inappropriate, or till some better shall be devised, and we propose to give to it that it may also serve as a timely warning of the fatal consequences of its invasion if neglected, the epithet *Tetralge*, or *the four misery disease*, from *τετρα*, *quatuor*, and *αλγη*, *dolor*; conjoining to the three above enumerated affections, a fourth, viz. the wretched cramps and spasms of the legs and abdominal muscles, which so frequently, but not invariably, attend the disease: and thus constituted and titled, it may be said to be somewhat as the candid rattle-snake, always carrying about with it its salutary warning. Such is, however, merely a proposition for adoption or rejection, as may be judged right in a system of medicine. The public will ever, probably, continue to call it by the dread name of cholera morbus, though ambiguous and wrong as to its signification as now used. For names are of no mean importance in leading our views and opinions, and the nearer these approach or approximate to the truth, the danger of error will be the more diminished, and the facility of forming just reasonings and conclusions be augmented. The catalogue of the genera of human diseases will be also diminished by the measure we have proposed, by the removal of

one of its most obscure genera, which cannot but facilitate the labours of the rising generation of physicians in acquiring their art.

Arrived at this point of the subject, and furnished with the preceding data, we may now profitably turn our attention for a moment to the consideration of one of the latest and most popular, as well as most generally read and used, of the medical works of the present day; that of Dr. Mason Good, entitled, *Studies of Medicine*. At Vol. i., p. 248, we have his views of this complaint, and like a redoubtable systematist, he commences with taking the genus *Cholera*, and dividing it into three species—the *biliosa*, the *flatulenta*, and the *spasmodica*. In describing the first of these, the *biliosa*, he falls fully and without reserve into all the vague notions about the bilious character of the complaint, as, indeed, the name he has chosen for his first species implies; and under this apprehended species, he enters the one half of the dire history of this terrible complaint, reserving the other moiety of its hosts of slain, as an offering to his third species, the *spasmodica*, which are all most evidently but one and the same complaint, the spasms or cramps of the legs and abdomen accompanying the disorder, (as he himself indeed inadvertently admits) in both species; and it is to be remarked that these spasmodic affections do accompany the complaint most severely where there is considerable or excessive vomiting attending it.

As to his second species, *flatulenta*, it is evidently, at least as we believe, no other than an anomalous case of wind colic, drawn in to fill up and make out a respectable family list of species. This serves to bring to our recollection, as suiting the present place, what we had before purposely omitted to mention, the *cholera*, *ξηρα*, of Hippocrates, or *cholera sicca*, of his translators, or dry cholera; which, apparently in compliment as it were to the great father of medicine, Hippocrates, Sydenham also makes mention of, but afterwards adds, that he never saw but one case of it, so that the existence of any real, essentially-specific disease, may be fairly doubted: and may not such a case be easily explained, by a view of those cases of common cholera which are attended with no previous diarrhœa, and which would be necessarily a puzzle to those who were fully possessed of the notion of the bilious origin of this complaint, from whence they apprehended the purging sprung, and which to them would give it all the appearance of another and different disease. It would appear either to have been this, or some anomalous case of dyspeptic colic, reducible to no certain rule or character. And as to flatulence, or wind, it accompanies all kinds of imperfectly-arrested digestion, especially where the powers are strong to resist the access of the full character of the disease in a perfect suppression. And that such flatulence does generally occur, we may prove by reference to the description of Celsus, and innumerable cases recorded during the late epidemic; so that surely it cannot constitute with propriety a specifically-different disease.

There is one remark, I find, with Dr. Good, which appears to deserve a more particular attention here, and which seems to be well-founded on fact, viz., that powerful impressions upon the sensorium, especially of a nature to excite grief, or any sudden alarm or fright, will sometimes have the effect of bringing on an attack of this complaint; and if such be admitted, it will go some way in explaining a considerable number of those cases of cholera, where the evidence of contagion appeared all but decisive. Instances of relations and friends falling immediately one after another, as though they had certainly communicated it to each other, gave to it the indelible impression of an infectious disease: being seized in the presence of their friends, or dying before them, so filled them with fear and apprehension, and took such possession of their minds, that they became in consequence (other things, perhaps, at the time conspiring, as similarity of food, and similar exposure to atmospheric impressions,) obnoxious to the disease, from a suspension of the proper functions of the nerves leading to the parts, which losing their influence over the digestive organs in particular, would induce the attack; so that nothing, under such circumstances, could shake the belief of the spectators that such were true cases of contagion. In the *Philosophical Transactions* for 1667, there is related a case, with every appearance of truth, where a terrible loud clap of thunder appeared immediately to have the effect of bringing on the disorder; and I think, in the course of perusing some of the more ancient writers on this disease, I have also seen recorded testimonies of its invasion from similar causes.

Dr. Mason Good seems very much to depend upon opium with tonics, as Calumbo root, in his treatment of the disease, given very much after the manner of Sydenham. As to the probable effect of opium we have already delivered our sentiments.

That dampness and chills, and not contagion, led to the complaint, is also strongly corroborated by a remark of Gendrin, p. 312, "*Le plus grand nombre ont été atteintes pendant la nuit,*" &c.; and Bouillaud also informs us that smaller colicky affections of the stomach and bowels preceded for

several weeks the grand attack of the disease in Paris, so that the acting cause came on gradually, which would also appear to confirm our opinion of the nature of it, and to remove the idea of any specific contagion. These smaller affections were called by the French physicians, by way of distinction, the *Chôlerine*.—*Traité du Cholera Morbus*, p. 191.

If further proof were necessary, we may have the most unquestionable of the propriety and advantages of the stimulant plan of treating this disease by reference to the writings of Dr. Burrell, (vide *Bombay Reports*, p. 68—80,) who states, that the bile sometimes flows during this complaint, which affords us the opportunity of saying, that neither its suppression or its flow is a necessary or invariable character in the disorder, but that either may happen according to the individual case; still a suppression is the more usual condition, from the cause we have formerly stated, viz., that that which arrests digestion will probably also have a tendency to arrest the flow of bile. And also from the works of Dr. Orton on *Indian Cholera*, 2 vols., Madras, 1820, and since edited in London. Also from the writings of Frederick Corbyn, an eminent surgeon in the Company's establishment in India, and a considerable number of his medical associates, in an excellent communication to Sir Gilbert Blane, inserted in the *Medico-Chirurgical Transactions*, vol. ii., p. 110. On turning to the writings of Dr. Cullen, we see that he gives a most woeful description of the highly-bilious nature of this complaint, and that "the bile is acting both upwards and downwards," &c. As to his treatment, it is chiefly derived from Sydenham.

And now, in conclusion, may I presume to state that this stimulant plan of treatment was strongly urged by me, and with all the combined agents necessary to render it successful in the treatment of horses, as far back as 1804-5, and of which I ascertained and gave a full account to the public in a dissertation printed in London in 1815, where many interesting particulars and remarks may be seen, not here introduced. And may I not also state, that from having contemplated the disease in the simple form in which it appears in the horse, I was led to extricate it from its so generally imagined bilious origin, and by comparing and transferring those observations to the human body, was led to see also that the bile had hardly more to do with the disease in the one case than it had in the other.

Having brought to a conclusion my observations on this perplexing malady, in token of long friendship and sincere regard, I now inscribe them to my very worthy and learned friend, Dr. Hodgkin.

Taunton-place, Regent's-park, 6 mo. 1st, 1833.

FINIS.